Figure 1. Melting Curves for Genotyping the Most Stable Mismatch

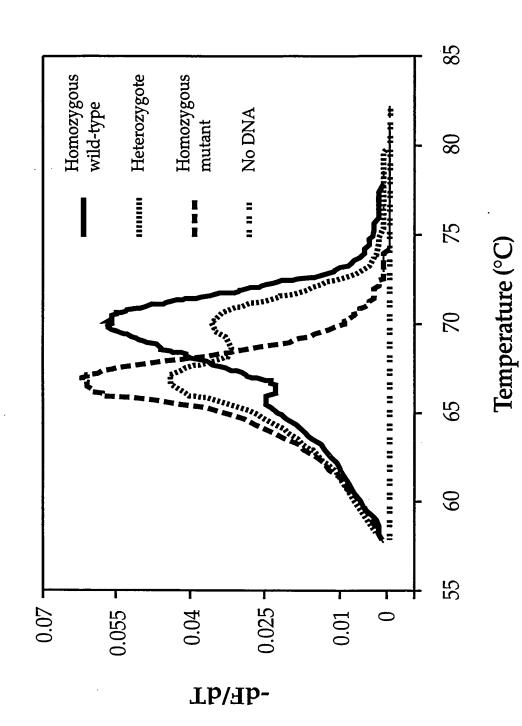


Figure 2. Continous (within cycle) monitoring of PCR with Hybridization and Exonuclease Probes

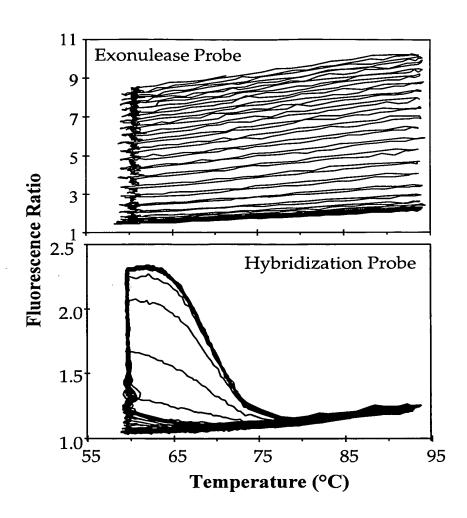


Figure 3. Multiplexing by Color and Tm

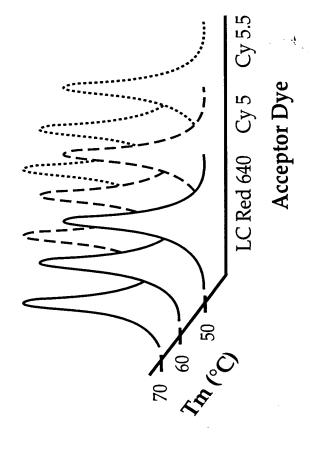


Figure 4. The Rapid Cycler<sup>TM</sup>

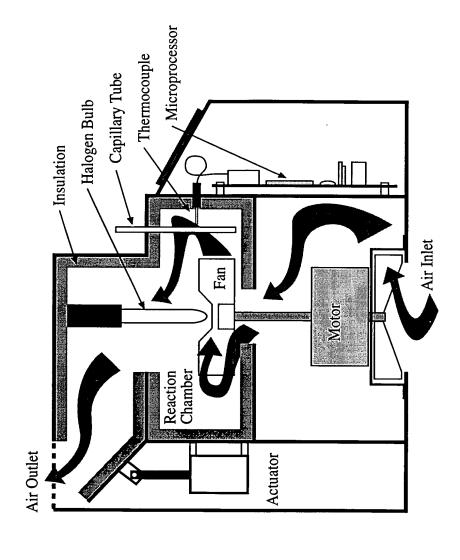
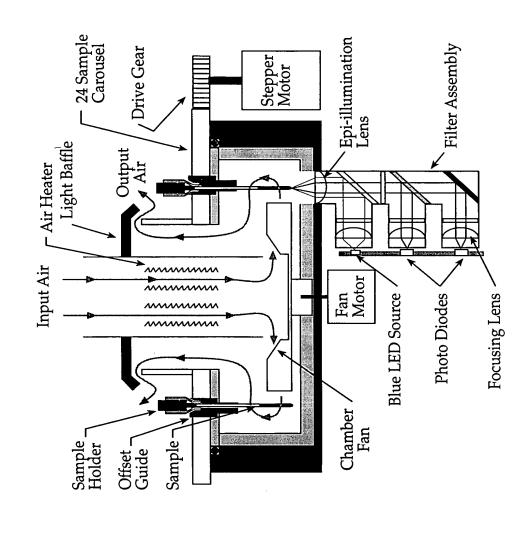


Figure 5. The Light Cycler<sup>TM</sup>



Wavelength (nm)

Figure 6. Spectral Overlap between fluorescein, LC Red 640, CY5, Cy5.5

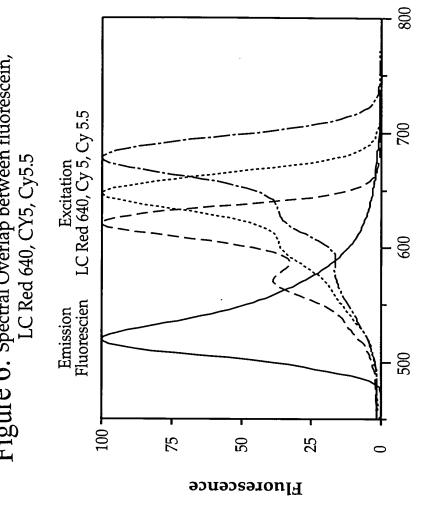


Figure 7. Emission Spectra of Resonance Energy Transfer Acceptors

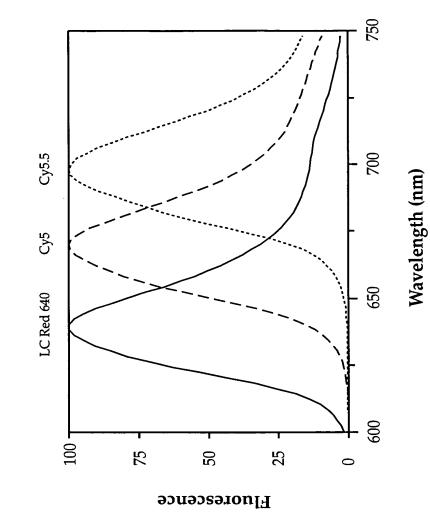
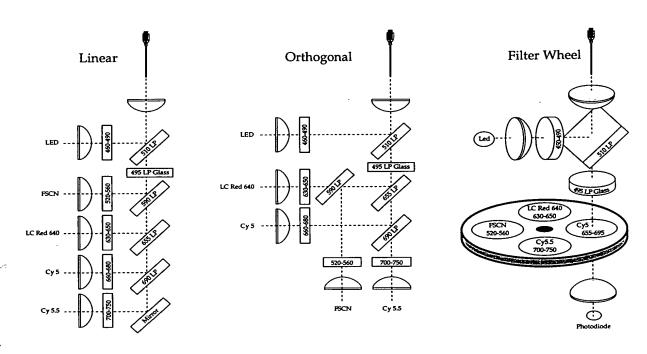


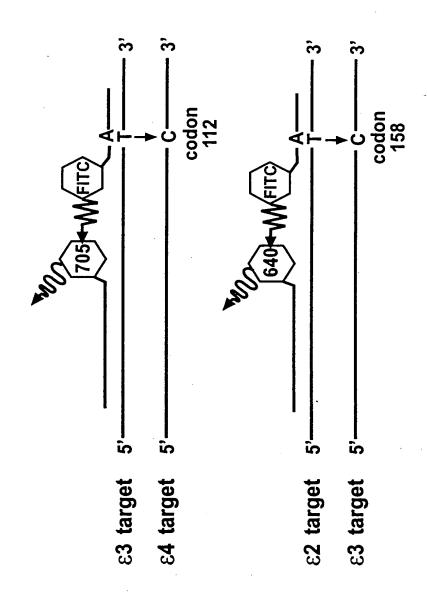
Figure 8. Four Color Light Cycler  $^{\text{TM}}$  - Optical Design

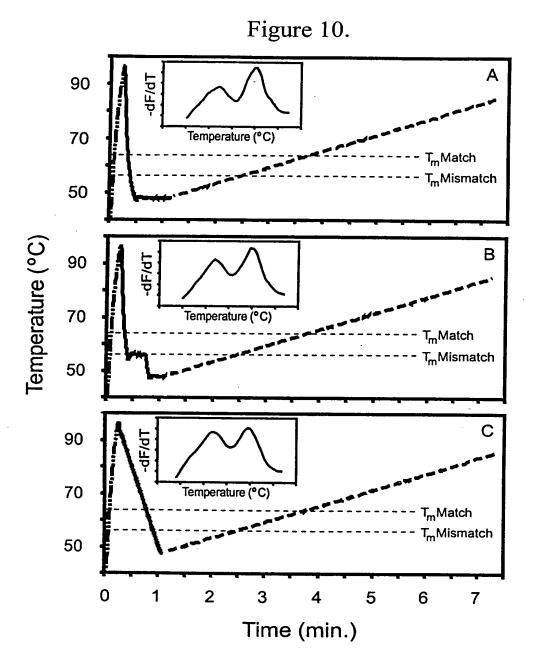


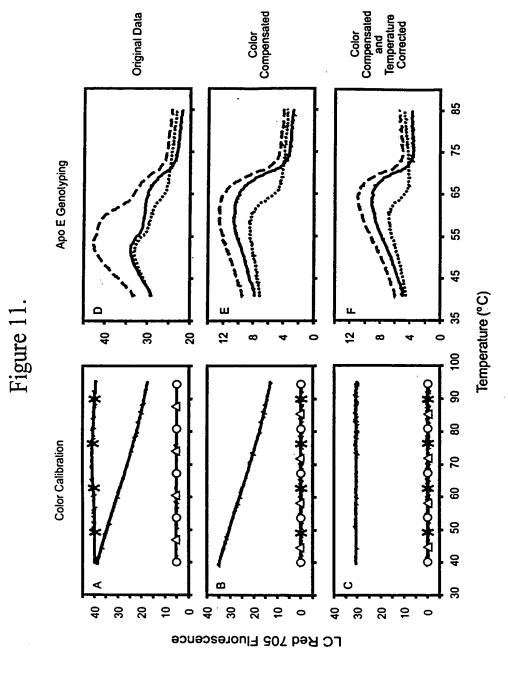
Percent of Spectra in Band Pass

	FSCN	LC Red 640	Cy 5	Cy 5.5
LED	47	0.8	0.2	0.3
FSCN	48	<0.1	< 0.1	< 0.1
LC Red 640	1.5	41	7.8	0.8
Cy 5	0.7	14	43	11
Cy 5.5	0.4	7.7	16	49

Figure 9.







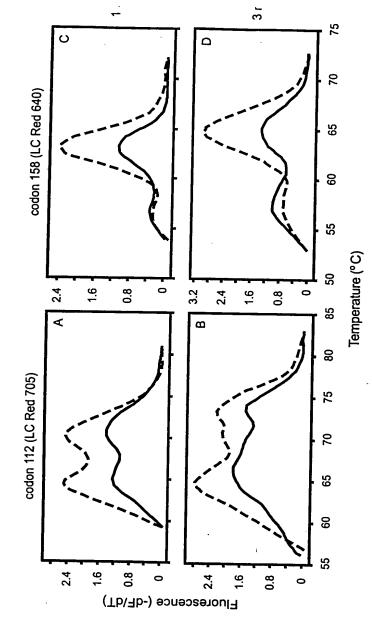


Figure 12.

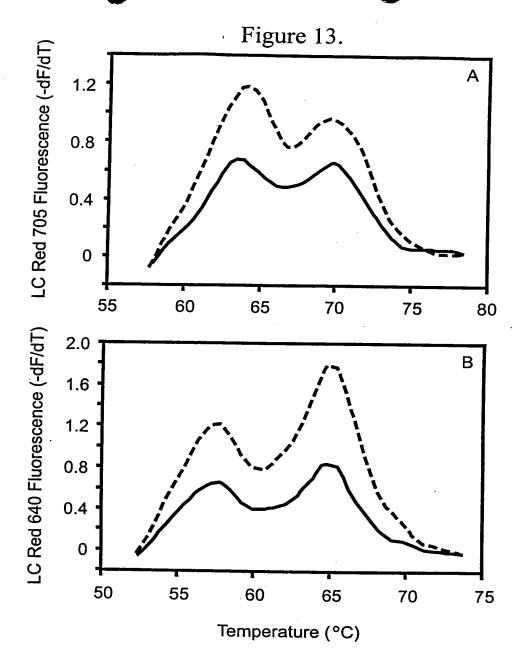


Figure 14.

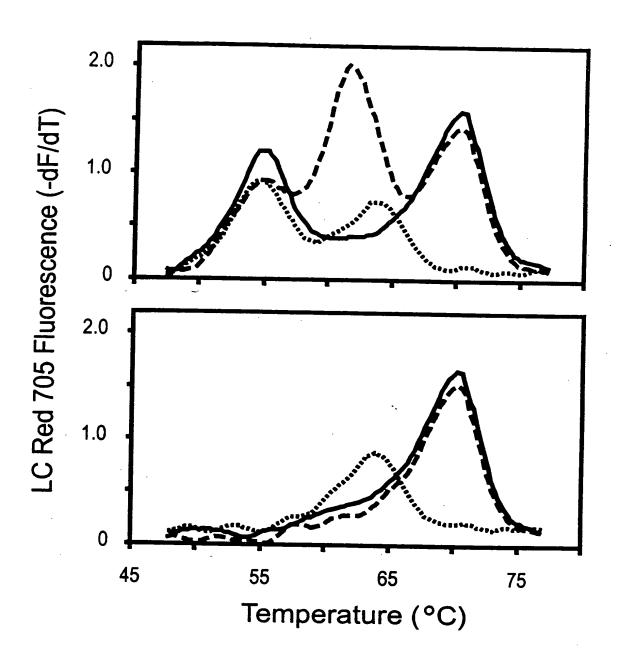


Figure 15.

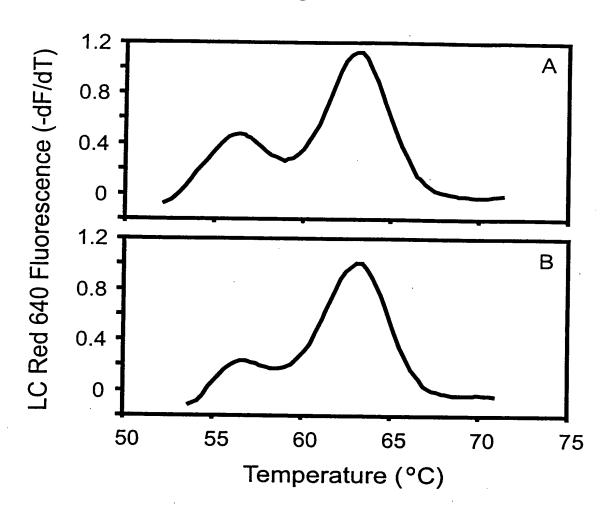
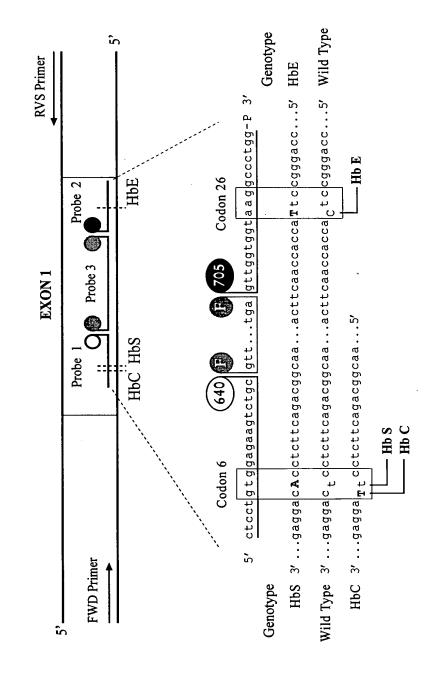
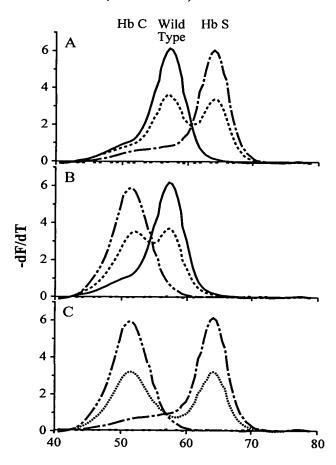


Figure 16.



## Figure 17.

Codon 6 Probe (LC Red 640)



Codon 26 Probe (LC Red 705)

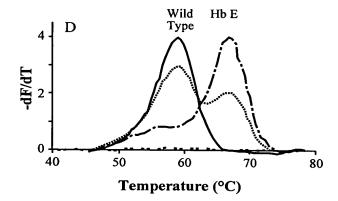
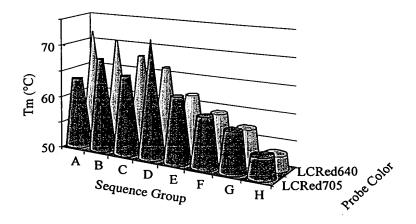
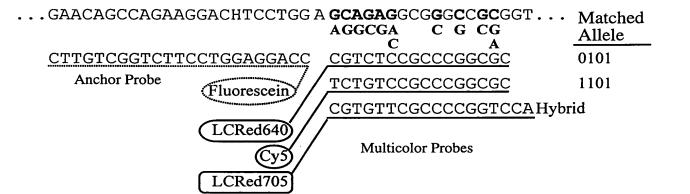


Figure 19. Predicted Tms for 2 Probes at a HLA-A Variable Reigon



## Figure 20. Sequence Variation and Probe Design at DRB1



 $Figure\ 21.\ {\tt Predicted\ Tms\ for\ 3\ Probes\ at\ a\ HLA\ DRB1\ Variable\ Region}$ 

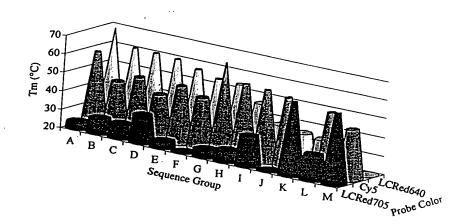


Figure 22. Scanning for Mutations



